The Most Cited Publications of Cartographers in Google Scholar

Najcitiranije publikacije kartografa u Google Scholaru

Nowadays, three most popular citation databases are *Web of Science* (*WoS*), *Scopus* and *Google Scholar* (*GS*). In contrast to *WoS* and *Scopus*, *GS* is freely accessible. Comparing the three citation databases, *WoS* and *Scopus* have precisely defined and published criteria for selection of sources and papers from these sources. *Google's* policy is quite non-transparent. In recent times, however, scientists have been increasingly citing data from *GS* in addition to data on presence and citations in databases *WoS* and *Scopus*. In the conclusion of a comparative analysis of number of citations of papers published in the *Croatian Medical Journal* in 2005 and 2006 according to the three citation databases, it is emphasized that *GS* may serve as an alternative bibliometric measure of citation frequency (Šember et al. 2010). An investigation of the number of citations for scientists from the fields of library and information sciences for the period 1996–2005, according to the three mentioned citation databases, has shown, among other things, that citations collected by *GS* are very useful. They are not of the same quality and significance as those from *WoS* and *Scopus*, but they point at a broader international echo of the cited papers than results obtained using WoS and Scopus (Meho, Yang 2007).

Therefore, we decided to identify the most cited worldwide papers of well-known cartographers according to *GS*. *GS* (beta version) has been operational since 2004 and has facilitated a straightforward search of academic literature. Additionally, it records number of citations of included papers. It is possible to search for articles, diploma, master and doctoral theses, books, abstracts, publications of academic publishers, releases of professional associations, and Internet repositories of universities and other institutions.

Advanced search in *GS* makes it possible to find all papers by a particular author. Forename and surname (or initials and surname) of the author have to be entered inside quotation marks in the corresponding field. For every item found, the number of citations is displayed as well. For every paper, which is available online in integral form, a link to its full text is given. Items are sorted according to their significance, i.e. according to the number of citations. Hence, the most cited paper appears at the top. In order to verify some authors' identity, their user profiles are provided preceding the list. These profiles contain the author's first and last name and his or her affiliation with the web address of the institution. Clicking the name of the scientist reveals additional information: fields of activities, total number of citations, *H*-index, *i10*-index (number of publications with at least 10 citations), a graphical representation of citations for different calendar years, and the number of citations for each particular paper.

We decided to search only for the most cited papers by cartographers according to *GS*. We considered authors who have at least approximately 30% items from the field of cartography among their papers included in *GS* as cartographers. Advanced search in *GS* makes it possible to find for any particular author the number of papers containing the words *cartography* or *cartographic* in the text. We used this as one of the checks. For authors with user profiles in GS, we verified whether their professional field is cartography. In the case of a positive answer, we checked the number of citations for the most cited paper.

What follows are the results of our *GS* queries. The most cited papers by cartographers with at least 300 citations are listed in which they are first authors. *GS* options were used and bibliographic data were taken from *GS* using *copy* and *paste*. However, we had to complete or correct the majority of bibliographic records. It should be mentioned that the most cited paper by Zhilin Li is published in Chinese and an English transcription of the author's name and the title were obtained using the Google translator. This publication is cited in 1006 articles published in Chinese and 107 articles in English – a total of 1179 citations. At the end of each bibliographical record, we added the total number of citations in parenthesis. We searched data for approximately 130 cartographers from October 25 to November 12, 2013. If we missed a paper with more than 300 citations, and if it is the most cited paper by a cartographer according to *GS*, we would be very grateful if this was pointed out to us.

Google Scholar

Tri su najpopularnije citatne baze podataka danas *Web of Science* (*WoS*), *Scopus* i *Google Scholar* (*GS*). *GS* je za razliku od *WoS*-a i *Scopusa* slobodno dostupan. Uspoređujući te tri citatne baze podataka treba reći da *WoS* i *Scopus* imaju precizne i objavljene kriterije odabira izvora i radova iz tih izvora, a *Googleova* politika odabira prilično je netransparentna. Međutim, u posljednje doba znanstvenici sve češće uz podatke o zastupljenosti i citiranosti, npr. pojedinih časopisa, u bazama podataka *WoS* i *Scopus* navode podatke i za *GS*. U zaključku usporedne analize citiranosti članaka objavljenih 2005. i 2006. u časopisu *Croatian Medical Journal* prema tri navedene citatne baze ističe se da *GS* može služiti kao alternativni bibliometrijski alat za orijentacijski uvid u citiranost (Šember i dr. 2010). Istraživanje citiranosti znanstvenika iz područja knjižničarske i informacijske znanosti prema tri navedene citatne baze podataka za razdoblje 1996–2005. pokazalo je, između ostaloga, da iako citati koje prikuplja *GS* nisu iste kvalitete i težine kao oni u *WoS*-u i *Scopusu*, vrlo su korisni jer pokazuju širi međunarodni odjek citiranih radova od onog koji se dobiva preko *WoS*-a i *Scopusa* (Meho, Yang 2007).

Odlučili smo stoga pronaći najcitiranije radove poznatih svjetskih kartografa prema *GS*-u. *GS* (beta verzija) pušten je u rad 2004. i služi za jednostavan način pretraživanja akademske literature, a bilježi i citiranost uključenih radova. Može se pretraživati članke, diplomske i magistarske radove, doktorske disertacije, knjige, sažetke, radove akademskih izdavača, profesionalnih društava, mrežne repozitorije sveučilišta i drugih organizacija.

Napredno pretraživanje u *GS*-u omogućuje pronalazak svih radova pojedinog autora. U odgovarajuće polje treba upisati pod navodnicima ime i prezime autora ili inicijale imena i prezime. Uz svaki rad naveden je i broj citata, a ako je cjeloviti rad dostupan na mreži i poveznica na cjeloviti tekst. Radovi su poredani po važnosti, tj. po broju citata tako da je pri vrhu najcitiraniji rad. Kao potvrda identiteta nekih autora, prije popisa radova, naveden je njihov korisnički profil koji sadrži ime i prezime autora i ustanovu u kojoj radi s e-adresom ustanove. Klikom na ime znanstvenika dobivaju se dodatni podatci: područja kojima se bavi, ukupan broj citata, *H*-indeks, *i10*-indeks (broj publikacija s najmanje 10 citata), grafički prikaz citiranja po godinama te broj citata za svaki pojedini rad.

Pretražujući *GS* odlučili smo pronaći samo najcitiranije radove pojedinog kartografa. Kartografom smo smatrali autore koji među radovima indeksiranim u *GS*-u imaju približno bar 30% radova iz područja kartografije. Napredno pretraživanje u *GS*-u omogućuje da se za pojedinog autora dobije broj radova u kojima se u tekstu spominju termini *cartography* ili *cartographic*. To smo iskoristili kao jedan od načina provjere. Za autore koji u *GS*-u imaju korisnički profil provjerili smo je li im područje rada kartografija, a ako je, koliko imaju citata za najcitiraniji rad.

U nastavku navodimo rezultate pretraživanja *GS*-a. Navedeni su radovi autora koji za svoj najcitiraniji rad, u kojem su oni prvoimenovani autori, imaju minimalno 300 citata. Iskorišten je oblik citiranja koji pruža *GS* pa su bibliografski podaci kopirani iz *GS*-a. Ipak, većinu bibliografskih zapisa morali smo dopuniti ili korigirati. Treba spomenuti i da je najcitiraniji rad Zhilina Lija objavljen na kineskom pa su autori i naslov rada na engleskom dobiveni Googleovim prevoditeljem. Rad je citiran u 1006 članaka objavljenih na kineskom i u još 173 članka objavljena na engleskom – ukupno 1179 citata. Na kraju svakog bibliografskog zapisa dodali smo u zagradi ukupan broj citata. Pretraživani su podaci za oko 130 kartografa, a pretraživanja su obavljena 25. 10. – 12. 11. 2013. Bit ćemo zahvalni svima koji nas upozore na radove kartografa s više od 300 citata prema *GS*-u, a koji smo mi propustili navesti.

Najcitiraniji kartografski radovi prema Google Scholaru koji imaju više od 300 citata
The most cited papers by cartographers according to Google Scholar and with at least 300 citations

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Nedjeljo Frančula, Nada Vučetić ■